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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,923	08/09/2001	Keiichi Imamura	2001-0555A	5080

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EXAMINER	
ROBINSON, BINTA M	

ART UNIT	PAPER NUMBER
1625	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,923	IMAMURA ET AL.	
	Examiner	Art Unit	
	Binta M Robinson	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13, 16, 20-26, 29-35 is/are pending in the application.

4a) Of the above claim(s) 20-26 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13, 16, 29-35 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12/17/03
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

The examiner notes that the elected group I invention is drawn to claims 1-13, 16, 29-35 to the compound of formula I where R1 is as claimed, R2 is as claimed, A is as claimed, R3 is H, cycloalkyl, cycloalkenyl, and aryl, a composition, and a process of preparing a compound of formula I as defined above and that an election of species was required, although, no election of species was made by the applicant. Claims 20, 21, 22, 23, 24,25, 26, are withdrawn from consideration.

The 102 (b) rejections over Hecker, Ca 127:81061, Ca 125:301567, Renk et. al., Baumann et. al., Backhaus et. al., the 102 (f) rejection over Backhuas, the 102 (g) rejection over Backhaus are withdrawn in light of applicant's amendments and comments at the amendment filed 8/25/04.

The 112, first paragraph and 112, second paragraph rejections of claims 15, 17, and 19 are rendered moot in light the cancellation of these claims in the amendment filed 8/25/04. The objection to claims 30-32 are rendered moot in light of the amendment to claim 29 in the amendment filed 8/25/04.

The IDS filed 8/25/04, 12/17/03, 8/901, and 5/3/01 have been considered.

The references denoted on the search report as X references have been considered.

(new objections)

The disclosure is objected to because of the following informalities:

After the title of the specification on page 1, the following information needs to be added: This application is a 371 of PCT/JP99/06142 filed 11/04/1999.

Appropriate correction is required.

(new rejections)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 29, 30, 31, 32, 33, 34, 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The provisos in claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 29, 30, 31, 32, 33, 34, 35 do not have proper antecedent basis in the specification. The proviso excluding the case where R1 is a hydrogen atom, A represents a bond or a methylene chain, R3 is phenyl or cyclohexyl, the case wherein R1 is hydrogen, A is a bond or an alkylene chain, R3 is a hydrogen atom, and the case wherein R1 is a hydrogen atom, A is a bond, and R3 is an adamantly or a phenylalkyl is not supported anywhere in the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13, 16, 29-32, 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Ricks et al. Ricks et. al. discloses the instant compounds 578, 579, 580, their compositions, and the instant method of preparing them. At columns 81, 203, 205, see the instant compounds, their compositions, and the method of preparing them. Please also see, for example, compounds 228-234, at columns 89 and 91.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 7, 10, 13, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Carceller et. al. (See Reference N). Carceller teaches the compound 64. At page 20, line 30-34, see compound 64.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13, 16, 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks et. al. (See Reference A)in view of Deacon (See Reference U) based on the 102 (e) date. Ricks et. al. teaches the instant compound as shown in Formula I, where only one of X1-X4 is N, and the other X1-X4 is CR", R" is independently as claimed between lines 57-63 at column 2, except that adjacent R" can not come together to form a ring, A is (ii) which is a carbocyclic aryl optionally substituted as claimed at lines 10-17 at column 3, or aryl which is optionally substituted as claimed at lines 27-52, at column 3, the composition containing said compound, as well as the process of preparing these compounds (See column 3, lines 6, columns 5 and 6, line 55,and columns 7-8, lines 1-19, wherein A in the ANH2 in the prior art process can be C1-C14 alkyl, C2-C14 alkenyl, optionally substituted with aryl, or heteroaryl. The difference between the instantly claimed compound, composition, and method of preparing these compounds and the prior art compounds, method of preparing these compounds, and composition is the teaching of a generic compound, composition containing said compound, and a method of treating with this compound versus a subgenus, pharmaceutical composition containing said subgenus and a method of treating fungal infections with these subgenus of

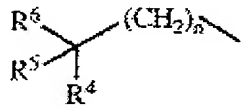
compounds. Deacon teaches that the particular fungi, (deuteromycota, ascomycota, and basidiomycetes) that are claimed in claim 33 are pathogenic fungi that commonly grow on the surfaces of living leaves or fruits. See page 188, column 2, lines 1-8. It is also known in the art that the particular diseases claimed in claim 34 are well known plant diseases. It would have been obvious to one of ordinary skill in the art to select various known radicals within a genus to prepare structurally similar compounds that are pathogenic against fungi, and against fungi that commonly grow on living leaves or fruits and to treat well known plant diseases, such as rice blast, cucumber anthracnose, powdery mildew of cucumber and wheat leaf rust.. For instance, see the compound, 230, at column 91, line 2, where a disclosed species is exemplified. Accordingly, the compounds are deemed unpatentable therefrom in the absence of a showing of unexpected results for the claimed compounds over those of the generic prior art compounds.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5, 7, 10, 13, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carceller. (See Reference N, EP' 172 published 2/24/93).

Carceller et. al. teaches the instant compound and composition containing the



said compound, as shown in Formula I, where Z is

R1 is –CN, -CO2R3, -CON(R3)2, -COR3, -C≡CR3 or –(R3)C=N-OR3, wherein R3 is hydrogen or a (C1-C6)alkyl group, R2 is hydrogen or (C1-C3)alkyl group, n is 0, 1 or 2, R4 is hydrogen, (C1-C6)alkyl, Ar1 or Het; Ar1 is a phenyl group optionally substituted by one or more groups chosen from halogen, trifluoromethyl, (C1-C6)alkyl, (C1-C6) alkoxy or hydroxy and when R4 is Het, then Het is a radical chosen from 5 or 6 membered aromatic heterocycle with one ring heteroatom chosen from N, O or S, or with two ring heteroatoms chosen from the pairs N/N, N/O or N/S and which may be optionally substituted by a group chosen from halogen, (C1-C6) alkyl, (C1-C6) alkoxy or hydroxy, R5 represents NR8R9 where R9 represents HetC(=O)-, R8 represents hydrogen, and Het in the R9 moiety is a 6 membered aromatic heterocyclic with heteroatom chosen from N which is substituted with hydroxy. At page 4, lines 5-55, see the compound of formula I and at page 5, lines 12-14, see the pharmaceutical composition containing said compound. The difference between the prior art compound and composition and the instantly claimed compound and composition is the teaching of a subgenus of generic compounds and compositions versus a genus of compounds and compositions. It would have been obvious to one of ordinary skill in the art to select various known radicals within a genus to prepare structurally similar compounds. For instance, see the

compound 64, where a disclosed species is exemplified. Accordingly, the compounds are deemed unpatentable therefrom in the absence of a showing of unexpected results for the claimed compounds over those of the generic prior art compounds.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 29, 30, 31, 32, 33, 34, 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. In claim 1, line 1, and all other occurrences throughout claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 29, 30, 31, 32, 33, 34, 35, the term "substituent" is indefinite where it is not further defined. What substituents are the applicant claiming? In claim 29, line 16, page 13, the term "substituted" is indefinite. What substituents are the applicant claiming?

B. Claim 35 is indefinite because it is unclear if the carrier is inert. A composition requires an inert carrier.

C. In claim 2, line 3, page 4 and everywhere else throughout claims 2, 3, 5, 6, 7, 9, 10, 11, the term "represented by" is unclear. It is unclear whether the radicals of the compound of formula I described as being "represented by" are only being limited to the moieties described at claim 2 and the other claims 3, 5, 6, 7, 9, 10, 11 or if the radicals can equal all

of the radicals that they are equal to in claim 1, with the exception that only the moieties for the radicals specifically described at claims 3, 5, 6, 7, 9, 10, 11 are further limited to the specific moieties described at claims 3, 5, 6, 7, 9, 10, 11. For example, it is clear in claim 3 that the radical A can only be the radicals defined at claim 3 because of the phrase "A is selected from". However, in claim 2, it is not clear if A can only be the radicals described at claim 2 or if the radicals for A can also include radicals in claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binta M. Robinson whose telephone number is (571) 272-0692. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562.

A facsimile center has been established. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machine are (703)308-4242, (703)305-3592, and (703)305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1600.

BMR
November 15, 2004

Cecilia J. Tsang
Supervisory Patent Examiner
Technology Center 1600